

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

*In re* application of:

Chee, M.S., et al.

Serial No. 09/189,543

Filed: November 10, 1998

For: *Decoding of Array Sensors with  
Microspheres*

Examiner: Marschel, A.H.

Group Art Unit: 1631

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including listed enclosures, is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on:

Dated: April 29, 2003

Signed: Deborah Dyson

Deborah Dyson

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

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Sir:

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In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO-1449. Copies of these references are attached.

None of the foregoing references are believed to disclose the invention as claimed. Nothing herein shall constitute an admission concerning the contents of any of the cited references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application.

Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.

As required by M.P.E.P. §2001.06(b), Applicants note that the present application is related to the following patent applications:

<u>Application Serial No.</u>	<u>Date Filed</u>
08/944,850	October 6, 1997
09/287,573	April 6, 1999
09/574,117	May 19, 2000
09/979,247	April 15, 2002
10/334,416	December 31, 2002

Pursuant to 37 C.F.R. §1.97(c), enclosed is a check in the amount of \$180.00 as set forth in 37 C.F.R. §1.17(p). While no further fee is believed to be due, if this belief is in error, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2319 (Our Order No. 469249-232 (A-66828-1/RMS/DCF/KJC)).

Please direct any calls in connection with this application to the undersigned at (415) 781-1989.

Respectfully submitted,  
DORSEY & WHITNEY LLP

Dated: April 29, 2003  
**Customer Number: 32940**  
Dorsey & Whitney LLP  
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BY: David C. Foster  
David C. Foster, Reg. No. 44,685  
for Robin M. Silva, Reg. No. 38,304  
Filed under 37 C.F.R. § 1.34(a)

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Substitute for form 1449A/PTO (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	09/189,543
				Filing Date	November 10, 1998
				First Named Inventor	Chen, M.S.
				Group Art Unit	1631
				Examiner Name	Marschel, A.
Sheet	1	of	15	Attorney Docket Number	A-66828-1/RMS/DCF/KJC

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	3,712,535	01/1973	Genese, J.N., et al.	
	A2	3,748,975	07/1973	Tarabocchia	
	A3	4,125,314	11/1978	Haskell et al.	
	A4	4,224,198	09/1980	Rembaum et al.	
	A5	4,448,485	05/1984	Bergman et al.	
	A6	4,582,789	05/1986	Sheldon, III et al.	
	A7	4,687,732	08/1987	Ward et al.	
	A8	4,729,949	03/1988	Weinreb et al.	
	A9	4,772,540	09/1988	Deutsch et al.	
	A10	4,842,783	06/1989	Blaylock	
	A11	4,868,130	09/1989	Hargreaves, W.R.	
	A12	4,876,187	10/1989	Duck et al.	
	A13	4,879,097	11/1989	Whitehead, T.P., et al.	
	A14	4,894,343	01/1990	Tanaka et al.	
	A15	4,895,805	01/1990	Sato et al.	
	A16	4,981,783	01/1991	Augenlicht	
	A17	5,015,843	05/1991	Seitz et al.	
	A18	5,019,350	05/1991	Rhum et al.	
	A19	5,026,599	06/1991	Koskenmaki	
	A20	5,061,336	10/1991	Soane	
	A21	5,071,531	12/1991	Soane	

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<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. 1107720\_1.DOC

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	A22	5,110,745	05/1992	Kricka et al.	
	A23	5,126,022	06/1992	Soane et al.	
	A24	5,135,627	08/1992	Soane	
	A25	5,176,881	01/1993	Sepaniak et al.	
	A26	5,177,012	01/1993	Kim et al.	
	A27	5,185,178	02/1993	Kosenmaki	
	A28	5,185,243	02/1993	Ullman et al.	
	A29	5,272,081	12/1993	Weinreb et al.	
	A30	5,296,375	03/1994	Kricka et al.	
	A31	5,304,487	04/1994	Wilding et al.	
	A32	5,308,771	05/1994	Zhou et al.	
	A33	5,310,674	05/1994	Weinreb et al.	
	A34	5,342,737	08/1994	Georger, Jr. et al.	
	A35	5,486,335	01/1996	Wilding et al.	
	A36	5,498,392	03/1996	Wilding et al.	
	A37	5,506,141	04/1996	Weinreb et al.	
	A38	5,518,883	05/1996	Soini	
	A39	5,541,311	07/1996	Dahlberg et al.	
	A40	5,545,531	08/1996	Rava et al.	
	A41	5,585,069	12/1996	Zanzucchi et al.	
	A42	5,587,128	12/1996	Wilding et al.	
	A43	5,589,351	12/1996	Harootunian	
	A44	5,593,838	01/1997	Zanzucchi et al.	

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	A45	5,595,915	01/1997	Geysen	
	A46	5,603,351	02/1997	Cherukuri et al.	
	A47	5,610,287	03/1997	Nikiforov et al.	
	A48	5,631,170	05/1997	Attridge	
	A49	5,631,337	05/1997	Sassi et al.	
	A50	5,632,876	05/1997	Zanzucchi et al.	
	A51	5,632,957	05/1997	Heller et al.	
	A52	5,635,358	06/1997	Wilding et al.	
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	A54	5,640,234	06/1997	Roth et al.	
	A55	5,643,738	07/1997	Zanzucchi et al.	
	A56	5,647,030	07/1997	Jorgenson et al.	
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	A58	5,660,988	08/1997	Duck et al.	
	A59	5,671,303	09/1997	Shieh et al.	
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	A64	5,714,330	02/1998	Brenner et al.	
	A65	5,726,026	04/1998	Wilding et al.	
	A66	5,747,169	05/1998	Fan et al.	
	A67	5,747,180	05/1998	Miller et al.	
	A68	5,750,015	05/1998	Soane et al.	
	A69	5,755,942	05/1998	Zanzucchi et al.	

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	A70	5,770,029	06/1998	Nelson et al.	
	A71	5,770,157	06/1998	Cargill et al.	
	A72	5,795,716	08/1998	Chee	
	A73	5,837,196	11/1998	Pinkel et al.	
	A74	5,843,655	12/1998	McGall	
	A75	5,846,842	12/1998	Herron et al.	
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	A77	5,854,033	12/1998	Lizardi	
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	A80	5,874,219	02/1999	Rava et al.	
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	A82	5,881,200	03/1999	Burt	
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	A84	5,922,617	07/1999	Wang et al.	
	A85	5,976,797	11/1999	Mitsubishi	
	A86	5,981,180	11/1999	Chandler et al.	
	A87	5,985,353	11/1999	Lawton et al.	
	A88	5,990,479	11/1999	Weiss et al.	
	A89	6,008,892	12/1999	Kain et al.	
	A90	6,037,186	03/2000	Stimpson	
	A91	6,039,894	03/2000	Sanjurjo et al.	

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	A92	6,045,760	04/2000	Aizawa et al.	
	A93	6,048,515	04/2000	Kresse et al.	
	A94	6,048,616	04/2000	Gallagher et al.	
	A95	6,060,743	05/2000	Sugiyama et al.	
	A96	6,071,748	06/2000	Modlin et al.	
	A97	6,074,754	06/2000	Jacobsen et al.	
	A98	6,087,114	07/2000	Rider	
	A99	6,090,549	07/2000	Mirzabekov et al.	
	A100	6,090,553	07/2000	Matson	
	A101	6,090,666	07/2000	Ueda et al.	
	A102	6,096,496	08/2000	Frankel	
	A103	6,100,973	08/2000	Lawandy	
	A104	6,114,038	09/2000	Castro et al.	
	A105	6,121,075	09/2000	Yamashita	
	A106	6,129,896	10/2000	Noonan et al.	
	A107	6,139,626	10/2000	Norris et al.	
	A108	6,200,737	03/2001	Walt et al.	
	A109	6,207,392 B1	03/2001	Weiss et al.	
	A110	6,210,910	04/2001	Walt et al.	
	A111	6,261,782	07/2001	Lizardi et al.	
	A112	6,266,459	07/2001	Walt, D.R. and K.L. Michael	
	A113	6,268,147 B1	07/2001	Beattie et al.	

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	A114	6,274,323 B1	08/2001	Bruchez et al.	
	A115	6,280,935	08/2001	Macevicz	
	A116	6,284,456	09/2001	Jones et al.	
	A117	6,284,465 B1	09/2001	Wolber	
	A118	6,285,807	09/2001	Walt, D.R., et al	
	A119	6,306,643 B1	10/2001	Gentalen et al.	
	A120	6,327,410 B1	12/2001	Walt, D.R. and K.L. Michael	
	A121	6,355,431 B1	03/2002	Chee et al.	
	A122	6,377,721	04/2002	Walt, D.R., and L.C. Taylor	
	A123	6,396,995	05/2002	Stuelpnagel, E., et al.	
	A124	6,406,845	06/2002	Walt, D.R., and B.G. Healey	
	A125	6,429,027	08/2002	Chee, M.S., et al.	
	A126	6,482,593	11/2002	Walt, D.R., and B.G. Healey	
	A127	20010029049	10/2001	Walt, D., and T. Dickinson	
	A128	20020001801	01/2002	Fan, J.B. and M.S. Chee	
	A129	20020006617	01/2002	Fan, J.B. and M.S. Chee	
	A130	20020051971	05/2002	Stuelpnagel, J.R., et al.	
	A131	20020122612	09/2002	Walt, D.R., and K.L. Michael	
	A132	20020132221	09/2002	Chee, M.S., et al.	
	A133	20020132241	09/2002	Fan, J.B., et al.	
	A134	20020150909	10/2002	Stuelpnagel, et al.	

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	A135	20020172716	11/2002	Walt, D.R., et al.	
	A136	20020177141	11/2002	Chee, M., and K. Gunderson	
	A137	20021087515	12/2002	Chee, M.S., et al.	
	A138	20030003490	01/2003	Fan, J.B., and M.S. Chee	
	A139	20030016897	01/2003	Walt, D.R., and K.L. Michael	
	A140	20030027126	02/2003	Walt, D.R., and K.L. Michael	

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Examiner Initials*	Cite No.	Foreign Patent Document Country Code <sup>2</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B1	JP 01283412	09/1991	Brother Ind Ltd, et al.		
	B2	UK 2294319A	04/1996	Cambridge Imaging Limited		
	B3	UK 2315130	01/1998	Cambridge Imaging Ltd.		
	B4	UK 2315131	01/1998	Cambridge Imaging Ltd.		
	B5	FR 2741357	05/1997	Corning Inc.		
	B6	EP 0539888A1	05/1993	Shimadzu Corporation		
	B7	EP 0572157A1	12/1993	Puritan-Bennett Corporation		
	B8	EP 0799897	10/1997	Affymetrix, Inc.		
	B9	WO 92/09300	06/1992	Iterex Pharmaceuticals LTD		
	B10	WO 94/02515	02/1994	Bunsen Rush Laboratories		
	B11	WO 94/12863	06/1994	Trustees of Tufts College		
	B12	WO 95/16918	06/1995	Combichem Inc.		

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				Application Number	09/189,543	
				Filing Date	N vemb r 10, 1998	
				First Named Inventor	Ch e, M.S.	
				Group Art Unit	1631	
Examiner Name	Marschel, A.					
Attorney Docket Number	A-66828-1/RMS/DCF/KJC					
Sheet	8	of	15			

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	B13	WO 95/21271	08/1995	Molecular Tool Inc.		
	B14	WO 95/33070A1	12/1995	New York Medical College		
	B15	WO 96/04547	02/1996	Lockheed Martin Energy Systems, Inc.		
	B16	WO 96/11878	04/1996	Regents of the Univ. of CA		
	B17	WO 96/15271	05/1996	Abbott Laboratories		
	B18	WO 96/36436	11/1996	IRORI		
	B19	WO 96/40901A1	12/1996	Gen-Probe Inc.		
	B20	WO 97/12030	04/1997	Nanogen, Inc.		
	B21	WO 97/13870	04/1997	Heller		
	B22	WO 97/45559	12/1997	Cornell Research Foundation		
	B23	WO 98/04746	02/1998	Mount Sinai School of Medicine of CUNY		
	B24	WO 98/08092	02/1998	Smith Kline Beecham Corp.		
	B25	WO 98/29736	07/1998	Genometrix Incorporated		
	B26	WO 98/46797	10/1998	Immunological Associates of Denver		
	B27	WO 99/00663	01/1999	California Institute of Technology		
	B28	WO 99/05320	02/1999	Rapigene, Inc.		
	B29	WO 99/09394	02/1999	Alexion Pharmaceuticals, Inc.		
	B30	WO 99/28505	06/1999	Curagen Corp.		

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				Filing Date	N vember 10, 1998
				First Named Inventor	Che , M.S.
				Group Art Unit	1631
				Examiner Name	Marschel, A.
Sheet	9	of	15	Attorney Docket Number	A-66828-1/RMS/DCF/KJC

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	B31	WO 99/34931	07/1999	Cartesian Technology, Inc.		
	B32	WO 99/39001	08/1999	Amersham Pharmacia Biotech AB		
	B33	WO 99/53087	10/1999	Europäisches Laboratorium für Molekularbiologie (EMBL)		
	B34	WO 00/26411A1	05/2000	Lynx Therapeutics		
	B35	WO 00/34299A1	06/2000	Biochip Technologies GMBH		
	B36	WO 00/47767	08/2000	Astrazeneca UK Limited.		
	B37	WO 00/71992	11/2000	Illumina Inc.		
	B38	WO 01/12862	02/2001	Illumina, Inc.		
	B39	WO 01/18524	03/2001	Illumina, Inc.		
	B40	WO 01/41918	06/2001	Illumina, Inc.		
	B41	WO 01/46675	06/2001	Illumina, Inc.		
	B42	WO 01/57268	08/2001	Illumina Inc.		
	B43	WO 01/57269	08/2001	Illumina Inc.		
	B44	WO 01/59432	08/2001	Illumina Inc.		
	B45	WO 01/61043	08/2001	Illumina Inc.		
	B46	WO 02/00336	01/2002	Illumina Inc.		
	B47	WO 02/099982	12/2002	Illumina Inc.		
	B48	WO 02/12897	02/2002	Illumina Inc.		
	B49	WO 02/16649	02/2002	Illumina Inc.		

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				First Named Inventor	Chee, M.S.
				Group Art Unit	1631
				Examiner Name	Marschel, A.
Sheet	10	of	15	Attorney Docket Number	A-66828-1/RMS/DCF/KJC

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	B50	WO 02/21128	03/2002	Illumina Inc.		
	B51	WO 02/101358	12/2002	Illumina Inc.		
	B52	WO 03/002979	12/2002	Illumina Inc.		
	B53	WO 03/006677	01/2003	Illumina Inc		

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	C1	Angel, S., "Optrodes: Chemically Selective Fiber-Optic Sensors," Spectroscopy, 2(4):38-47 (1987)	
	C2	Baner et al., "Signal amplification of padlock probes by rolling circle replication," Nucleic Acids Research, 26(22): 5073-5078 (1998).	
	C3	Barnard et al., "Fiber-Optic Organic Vapor Sensor," Environ. Sci. Technol., 25(7): 1301-1304 (1991)	
	C4	Ben-Dor, A., et al., "Universal DNA Tag Systems: A Combinatorial Design Scheme." J. Compu. Biol. 7(3/4): 503-519 (2000)	
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				Filing Date	N vember 10, 1998
				First Named Inventor	Che , M.S.
				Group Art Unit	1631
				Examiner Name	Marschel, A.
(use as many sheets as necessary)				Attorney Docket Number	A-66828-1/RMS/DCF/KJC
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	C27	Hafeman, D. et al., "Light-Addressable Potentiometric sensor for biochemical systems," Science, 240:1182-1185 (1988)	
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				Application Number	09/189,543
				Filing Date	November 10, 1998
				First Named Inventor	Chee, M.S.
				Group Art Unit	1631
				Examiner Name	Marschel, A.
Sheet	12	of	15	Attorney Docket Number	A-66828-1/RMS/DCF/KJC

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	C29	Hogan, B. et al., "Single-cell Analysis at the Level of a Single Human Erythrocyte," Trends in Analytical Chemistry 12(1):4-9 (1993)	
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	C33	Illumina Inc. "Emerging," Windhover's In Vivo, The Business and Medicine Report, pg. 1-2 (September 1998)	
	C34	Ince, C. et al., "A Micro-Perfusion Chamber for Single-Cell Fluorescence Measurements," Journal of Immunological Methods 128:227-234 (1990)	
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	C40	Lin, Z. et al., "Multiplex genotype determination at a large number of gene loci," Proc. Natl. Acad. Sci. USA, 93: 2582-2587, Mar. 1996	
	C41	Lippitsch, M. et al., "Fibre-Optic Oxygen Sensor with the Fluorescence Decay Time as the Information Carrier," Anal. Chem. Acta., 205:1-6 (1998)	
	C42	Lizardi et al., "Mutation detection and single-molecule counting using isothermal rolling-circle amplification," Nature Genetics, 19: 225-232 (July 1998).	
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	C46	Luong, J. et al., "Fluorescence Sensors for Monitoring Bioprocesses," Practical Fluoro, ed. G.G. Guilbault, 2nd Ed., Marcel Dekker. 775-793 (New York 1990)	
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				Application Number	09/189,543
				Filing Date	November 10, 1998
				First Named Inventor	Che, M.S.
				Group Art Unit	1631
				Examiner Name	Marschel, A.
Sheet	14	of	15	Attorney Docket Number	A-66828-1/RMS/DCF/KJC

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	C65	Saari et al., "pH Sensor Based on Immobilized Fluoresceinamine," Anal. Chem., 54:821-823 (1982)		
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	C82	Wong, K. et al., "Simultaneous Monitoring of Glutathione and Major Proteins in Single Erythrocytes," Mikrochim. Acta. 120:321-327 (1995)	
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